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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,634	12/20/2000	Akihiro Kondoh	030675-047	4754

7590 01/27/2003

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EXAMINER

CHU, CHRIS C

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 01/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/739,634

Applicant(s)

KONDOH, AKIHIRO

Examiner

Chris C. Chu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on November 26, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4 - 6, 8 and 10 - 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4 - 6, 8 and 10 - 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's amendment filed on November 26, 2002 has been received and entered in the case.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teruhiro in view of Hirota.

Regarding claim 1, Teruhiro discloses in Fig. 1 an electronic apparatus comprising:

- an electronic circuit board (5);
- an electrically conductive casing (14) for encasing said electronic circuit board;

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- a semiconductor element module (3) electrically connected to said electronic circuit board via a plurality of lead terminals (4a and 4b), said semiconductor element module having a column-shaped section, an axis of said column-shaped section being parallel to a direction of extension of said lead terminals; and
- a resin fixture (16) intervening between said electrically conductive casing (14) and said semiconductor element module (3), said resin fixture (16) mounted with said semiconductor element module (3) and fitted to said electrically conductive casing.

Teruhiro does not disclose a cylinder-shaped section in the resin fixture, an outer periphery surface of said cylinder-shaped section being metal plated and an inner periphery surface of said cylinder-shaped section not being metal plated. However, Hirota discloses in Fig. 8, Fig. 12A, Fig. 12B, Fig. 14A, Fig. 14B and column 8, lines 54 ~ 67 and column 11, lines 3 ~ 5 a cylinder-shaped section (3) in a resin fixture (2) for retaining, in its inner periphery, a column-shaped section of a semiconductor element device, an outer periphery surface of said cylinder-shaped section being metal plated (3) and an inner periphery surface of said cylinder-shaped section not being metal plated. Thus, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to modify Teruhiro by using the cylinder-shaped section in the resin fixture, an outer periphery surface of the cylinder-shaped section being metal plated and an inner periphery surface of the cylinder-shaped section not being metal plated as taught by Hirota. The ordinary artisan would have been motivated to modify Teruhiro in the manner described above for at least the purpose of increasing contact performance (column 11, line 5).

Regarding claim 8, since Teruhiro does not limit the adhesive sheet to any particular or specific adhesive sheet, his/her disclosure encompasses all well known adhesive sheet including "an electrically conductive adhesive sheet."

4. Claims 4 ~ 6 and 10 ~ 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teruhiro and Hirota as applied to claim 1 above, and further in view of Suzuki et al.

Teruhiro, as modified, discloses the claimed invention except for said semiconductor element module having a raised portion and a recessed portion and an externally threaded portion formed on its outer surface at a site where said semiconductor element module being fitted to said resin fixture, and wherein said resin fixture having a recessed portion and a raised portion and an internally threaded portion formed in its inner surface at a site where said semiconductor module being mounted, said recessed portion being fitted to said raised portion. However, Suzuki et al. shows said semiconductor element module (1) having a raised portion (part of 2) and a recessed portion (part of 2) and an externally threaded portion (2) formed on its outer surface at a site where said semiconductor element module being fitted to said resin fixture (see Fig. 2), and wherein said resin fixture (3) having a recessed portion (part of 5) and a raised portion (part of 5) and an internally threaded portion (5) formed in its inner surface at a site where said semiconductor module being mounted, said recessed portion being fitted to said raised portion (see Fig. 1). Thus, it would have been obvious to one of ordinary skill in the art at the time when the invention was made to further modify Teruhiro by including a raised portion and a recessed portion and an externally threaded portion formed on outer surface of the semiconductor element module and corresponding a recessed portion and a raised portion and an

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internally threaded portion formed in inner surface of the resin fixture as taught by Suzuki et al.

The ordinary artisan would have been motivated to further modify Teruhiro in the manner described above for at least the purpose of providing the desired performance to be consistently obtained.

### *Response to Arguments*

5. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris C. Chu whose telephone number is (703) 305-6194. The examiner can normally be reached on M-F (10:30 - 7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7382 for regular communications and (703) 308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Chris C. Chu  
Examiner  
Art Unit 2815

c.c.  
January 22, 2003

A handwritten signature in black ink, appearing to read 'Eddie Lee', with a large, sweeping initial 'E'.

**EDDIE LEE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**